Amendments to the Specification:

Please replace paragraph **[0019]** with the following rewritten paragraph:

[0019]

In the electric power supply apparatus according to the first aspect of the present invention, it is preferred that ~~the frequency electric power control circuit~~the control circuit includes a low-frequency synchronizing circuit which controls the oscillation frequency of the generator so that an output frequency of the low-frequency electric power output from the generator becomes a predetermined series resonance frequency which is characteristic of impedance, a high-frequency synchronizing circuit which controls the oscillation frequency of the generator so that an output frequency of the high-frequency electric power output from the generator becomes a predetermined series resonance frequency which is characteristic of impedance, and ~~a frequency electric power control circuit~~the frequency electric power ratio controller which switches between the low-frequency and the high-frequency.

Please replace paragraph **[0020]** with the following rewritten paragraph:

[0020]

With such a configuration, ~~the frequency electric power control circuit~~the frequency electric power ratio controller switches between the low-frequency and the high-frequency, and the low-frequency synchronizing circuit and the high-frequency synchronizing circuit respectively control the oscillation frequency of the generator so that the output frequency output from the generator becomes the predetermined series resonance frequency which is characteristic of impedance. Thus, the switching between different frequencies can be easily performed by ~~the frequency electric power control circuit~~the frequency electric power ratio controller, and frequency synchronizing at different frequencies can be easily performed by

the low-frequency synchronizing circuit and ~~the high-frequency control circuit~~the high-frequency synchronizing circuit.

Please replace paragraph **[0027]** with the following rewritten paragraph:

[0027]

In the electric power supply apparatus according to the first aspect of the present invention, it is preferred that the control circuit includes synchronous control circuits corresponding to each of the frequencies of the AC electric power supplied from the generator, and a storage for, when transiting to a quiescent period during which the AC electric power is not supplied from the generator with respect to a predetermined frequency, storing frequency information concerning the predetermined frequency. When transiting to an operation period during which the AC electric power is supplied from the generator with respect to the predetermined frequency, the respective synchronous control circuit performs the synchronous control based on ~~a synchronizing information~~the frequency information as synchronizing information stored in the storage.

Please replace paragraph **[0049]** with the following rewritten paragraph:

[0049]

Thus, in ~~the matching circuit 321~~the matching circuit 320, a low-frequency series resonance circuit 325, which includes the reactor L, the first capacitor C1, and the load coil equivalent inductance N^2L0, for performing series resonance at the low-frequency, and a high-frequency series resonance circuit 326, which includes the second capacitor C2 and the load coil equivalent inductance N^2L0, for performing series resonance at the high-frequency are constituted. Since having low load resonance impedance, the low-frequency series resonance circuit 325 is connected between the output terminal S1 and the tap 321C of the

secondary winding 321B, the impedance conversion ratio therebetween being relatively large. Since having high load resonance impedance, the high-frequency series resonance circuit 326 is connected between two output terminals S1 and S2 of the secondary winding 321B, the impedance conversion ratio therebetween being relatively small.

Please replace paragraph **[0051]** with the following rewritten paragraph:

[0051]

Further, since the maximum electric power is supplied to the load when the output impedance of the supplied electric power matches the load impedance, based on the frequency characteristic of impedance of the matching circuit 320 as shown in the graph in Fig. 2, the matching circuit 320 matches, by the matching transformer 321, the output impedance with the resonance impedances of the low-frequency series resonance circuit 325 and ~~the low-frequency series resonance circuit 326~~the high-frequency series resonance circuit 326 to supply the maximum electric power efficiently. Further, since the circuit impedance of the matching circuit 320 becomes pure resistance of the AC electric power at resonance points of the low-frequency series resonance circuit 325 and the high-frequency series resonance circuit 326, and is proportional to the square root of the frequency, the resonance impedance of the high-frequency series resonance circuit 326 is larger than the resonance impedance of the low-frequency series resonance circuit 325 by a value proportional to the square root of {(frequency of the high-frequency) / (frequency of the low-frequency)}.

Please replace paragraph **[0054]** with the following rewritten paragraph:

[0054]

The frequency electric power ratio controller 332 is connected to the inverter 312 of the generator 310. Based on the setting signal concerning the power ratio corresponding to the

input operation conducted from the input section, ~~the frequency electric power ratio controller 322~~the frequency electric power ratio controller 332 controls the switching between the low-frequency AC electric power and high-frequency AC electric power output from the inverter 312 at high speed (such as 1 ms, for example) according to the predetermined power ratio (i.e. duty ratio). Specifically, based on the set input signal from the input section, the frequency electric power ratio controller 332 sets respective output periods of the low-frequency AC electric power and the high-frequency AC electric power within one cycle (100 ms, for example) for outputting both the low-frequency and the high-frequency, so as to control the switching between the low-frequency and the high-frequency as well as the power ratio.

Please replace paragraph **[0078]** with the following rewritten paragraph:

[0078]

The low-frequency matching transformer 521 matches the impedances of the resonance frequency load of the low-frequency with the output impedance of ~~the DC electric power~~the AC electric power output from the generator 310. The primary winding 521A of the low-frequency matching transformer 521 is connected to the generator 310, so that the converted AC electric power is input thereto.

Please replace paragraph **[0080]** with the following rewritten paragraph:

[0080]

The high-frequency matching transformer 522 matches the impedances of resonance frequency load of high-frequency with the output impedance of the ~~DC electric power~~the AC electric power output from the generator 310. The primary winding 522A of the high-frequency matching transformer 522 and the primary winding 521A of the low-frequency

matching transformer 521 are connected in parallel with the generator 310, so that the converted AC electric power is input.